

Indeed, in some instances, when the milk is *very* sour, I do not think that it is advisable to heat the curd at all after coagulation. I reason in this way; just as good cheese can be made without scalding at all, as with it; the reason that we scald the curd (if heating it to a temperature of 98° can be called scalding), is to develop the acid sooner, and if, when the curd is inclined to develop acid sooner than usual, we heat it to a temperature of 96° to 98° , we hasten the action of the acid, which is the very thing we are trying to avoid. In other words, when the acid in the curd is developing too fast of its own accord, we develop it still faster by means of heat, and thus aggravate the evil. After this curd is cut up, the whey must be removed from it as fast as it makes its appearance, and as soon as practicable, the vat must be tipped down, and the curd thrown to the upper end of the vat. The curd at this stage is very sloppy, as it contains considerable whey. One person should now cut it into small pieces with a knife, and another be employed in turning the pieces over and piling them up in heaps, so as to liberate the whey, which passes off in a continuous stream. When the curd has assumed a proper consistency it must be ground and salted; the quantity of salt used must be according to the amount of whey contained in the curd, which is generally, in such cases, considerably more than usual. In extreme cases, the whole process, from the adding of the rennet to the mixing in of the salt, can be performed in less than hour.

To explain why more rennet is needed when the milk is partially sour, I will refer to the address delivered by Professor Caldwell last year, before this Convention, and also to the able and highly useful paper read by L. B. Arnold, Esq., on "Rennet, its nature and use," before the same Convention. These gentlemen demonstrated to us very clearly that the acting principle of rennet consists of minute globules, or spores, which feed upon nitrogenous substances, and when placed in such, at a favorable temperature, multiply very rapidly. Now a quantity of rennet, containing a vast number of these spores, placed in a vat of milk which is highly nitrogenous, at a temperature of 80° , which is favorable to their growth, will multiply in a short time to such an extent as to cause its coagulation. And their action by no means stops here. They have still a very important mission to perform, viz., that of curing or ripening the cheese. And if the presence of these spores (Micrococci, I think they are called), in the cheese, cures or ripens it, an excess of them will ripen the cheese more quickly, and *vice versa*. Now we all know that a sour cheese, or a cheese which contains an excess of sour milk spores, (Arthrococci), takes a much longer time to ripen than a sweet cheese, and *vice versa*. Therefore, to have a cheese cured in a given time, the spores of the Micrococci and of the Arthrococci, must be contained in it in relative quantities. So, when we have a vat of sour milk to handle, where the Arthrococci are in abundance, we must add more rennet to counterbalance their action on the nitrogenous ingredients of the milk, and

thereby cause the ch
been added.

I have found b
made from sour mil
cheese, but they wil
color, these sour m
upon annatto. I h
more tendency to m

3. When the
spores, which are a
localities, in hot w
the utensils with wh
damaged in most ca
it can be greatly a
clean milk-pails, st
cleansed, and there
clinging to their s
and activity on l
During the past
September, in a fac
which was not tain
so much that the c
for the highest pri
milk, I prefer to h
or 70° in the mor
reasons. First, it
great abundance in
through the night
of the Arthrococci
the Micrococci, an
Second, when the
ature, a great num
gas, especially wh
foul odor it emits
temperature, this
as we can perceiv
of the milk does
their escape, and
retards their grow
of the sour milk s
the prevention of
that the less tain
sour in the morn
milk be properly
cooling such mill
whey with the r
but I prefer the
factive spores is